Form C-104
Rev. 10/07

VALUE ENGINEERING CHANGE PROPOSAL
MISSOURI DEPARTMENT OF TRANSPORTATION

Date July 10, 2008

Contract ID 080523-403 #5 Job No. J4P2020

County Lafayette Route 24 Original Bid Cost 955,713.16

Contractor APAC Inc. By Casey Castrop

Designed By MODOT Phone 573-449-0886

VECP # VECP 08-65 VECP ☒ or VECP/PDU ☐

1. Description of existing requirements and proposed change(s). Advantages/Disadvantages

Eliminate 1" surface leveling course, replace with 1" profile milling and increase thickness of BP-1 surface course to 2". Advantages to this proposal are as follows: eliminate anticipated but unknown overruns of asphalt on shoulders, smoother profile of roadway, increased safety due to lower depth transition milling, less impact on traveling public by using less passes of paving train.

2. Estimate of reduction in construction costs. $361,134.15

3. Prediction of any effects the proposed change(s) will have on other department costs, such as maintenance and operations.

Lower shoulder profile grade will aid in mowing slopes.

4. Anticipated date for submittal of detailed change(s) of items required by Section 104.6 of the Specifications.

_____
(date)

5. Deadline for issuing a change order to obtain maximum cost reduction, noting the effect of contract completion time or delivery schedule.

8/01/08 (date) Material delivery to asphalt plant (effect)

6. Dates of any previous or concurrent submission of the same proposal.

_____
(date and/or dates)

Additional Comments:

***** Portion Below This Line To Be Filled Out by MoDOT *****

Comments: SEE ATTACHED

Submitted By Resident Engineer
BRIAN Iles

7/21/08
Date

Comments: – CORE SAMPLES OF EXISTING DO NOT SOPPORT MILLING AS A VIABLE REHABILITATION OPTION.

Elizabeth A. Hyatt (PTP)

☐ **Approval Recommended**

☒ **Rejection Recommended**

District Engineer

7/25/08
Date

Comments: EXISTING ROADWAY CONDITION MAKES THIS OPTION NOT POSSIBLE

Dave Ahrens by PHB

☐ **Approval**

☒ **Rejection**

State Construction and Materials Engineer

8-4-08
Date

Distribution: Resident Engineer, Project Manager, District Operations Engineer, State Construction and Materials Engineer
*Value Engineering Administrator - *MoDOT, P.O. Box 270, Jefferson City, MO 65102

V.E. Proposal #5

Savings due to new proposal

Line No.	Item Description	Quantity	Unit Price	Amount
0040	Surface Leveling	19,588.80	$48.79	$955,713.16
???	anticipated BP-1 shoulder overrun	??		a lot

Total= $955,713.16

Costs due to new proposal(in addition to original plans)

Line No.	Item Description	Quantity	Unit Price	Amount
0041	1" Milling	276629.0	$1.49	$412,177.21
0030	Additional 1/4" of BP-1 on mainline	3804	$47.95	$182,401.80

* - Original plans had 1.75" through this area

Total= $594,579.01

Net Savings for new Proposal

Savings due to new proposal:	$955,713.16
Costs due to new proposal(in addition to original plans):	-$594,579.01
Net Value Engineering Savings:	**$361,134.15**
Total Value Engineering Savings for the Contractor(50%):	$180,567.08
Total Value Engineering Savings for MoDOT(50%):	$180,567.08

MEMORANDUM

Missouri Department of Transportation

Construction
Richmond Project Office

TO: Perry Allen-4co

CC: File

FROM: Brian K. Iles
Resident Engineer

DATE: July 21, 2008

SUBJECT: VE Concept Proposals
Job No. J4P2020 and J4M0202
Contract ID 080523-403
Route 24 and Route P, Lafayette County

Attached are five Construction Value Engineering Concept Proposals for the above referenced projects submitted by APAC-MO. The following are my recommendations for each VECP. Feel Free to contact me with any questions or comments.

VECP No. 1 – J4M0202 (Rte. P)

The contractor proposes eliminating the modified cold milling on the north and south end of this project. The north end of Rte. P ends at railroad tracks. There is a gravel entrance for the railroad to access the tracks. The contract includes crushed stone for this entrance. The south end of Rte. P ends at Rte. 24. The Project Manager, Paul Boenishch, indicated that this project was designed to be let alone and that is why the modified milling was included in the contract at the Rte. 24 intersection. Since the project was let combination with the Rte. 24 overlay, the modified milling is unnecessary. APAC intends to install the Rte. 24 overlay prior to overlaying Rte. P. There will be a 1.75-inch elevation difference between Rte. 24 and Rte. P for approximately two weeks. MoDOT will require the contractor to install a wedge until the Rte. P overlay is connected to Rte. 24.

I recommend approval of this Construction Value Engineering Concept Proposal No. 1.

AGREED PJW

VECP No. 2 – J4M0202 (Rte. P)

The contractor proposes installing 1.75-inches of BP-1 in lieu of the contract specified 0.5-inch of BP-3 and 1.25-inch of BP-2. Rte. P has significant rutting caused by trucks used to repair the railroad bed after the flooding that occurred the spring of 2007. This contract does not include quantity for irregularities. The BP-3 will overrun significantly to backfill the rutting. If used, the BP-1 would significantly overrun as well, which would negate any savings. This roadway needs a surface leveling before installation of a surface lift. In addition, the BP-3 is a better mix for backfilling the severe irregularities. Therefore, I recommend this proposal be denied.

AGREED PJW

VECP No. 3 - J4P2020 (Rte. 24)

The contractor proposes eliminating the 3.5-inch BP-1 overlay on the mainline concrete adjacent to the Tabo Creek Bridge but still install 3.75-inch, 4-foot wide shoulders. The existing concrete surface is in poor condition. In fact, this stretch will receive nearly 195 pavement repairs as part of this project. On July 10 2008, MoDOT determined to change the overlay thickness on the concrete from 3.50-inches to a minimum thickness of 2.75-inches to avoid encountering steel when conducting modified milling. MoDOT informed the contractor of this in a letter dated July 10, 2008. I recommend this proposal be denied because of the poor condition of the existing concrete.

VECP No. 4 - J4P2020 (Rte. 24)

The contractor proposes using a tack coat in lieu of a prime coat on the existing shoulders. APAC-MO inquired about this item in a phone call on July 14, 2008. There was no mention of value engineering at the time of the phone conversation with the contractor. This office contacted central office for a recommendation on the same day. Central Office informed this office that no prime is necessary. MoDOT informed the contractor that the prime was unnecessary in a letter dated July 14, 2008. Therefore, MoDOT did inform the contractor of the underrun prior to this proposal submittal. As result, I recommend the proposal be denied or only be considered as a practical engineering savings (75/25).

VECP No. 5 - J4P2020 (Rte. 24)

MoDOT has requested the contractor submit information about the existing roadway condition before MoDOT will consider the proposal for acceptance. We requested at least one core per mile to adequately indicate the condition of the roadway. The contractor has agreed to do this. My recommendation will be based on the results of the cores.

BRIAN INFORMED ME THAT CORES DETERMINED THAT STRIPPING EXISTS IN SOB COURSES. THIS PRECLUDES ANY MILLING UNLESS FULL REMOVAL. SINCE THIS IS NOT THE SCOPE, I RECOMMEND DENIAL OF THIS VECP NO. 5.

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VALUE ENGINEERING CHECK SHEET

TYPE OF WORK

(Check one that applies)

- ☐ Bridge/Structure/Footings
- ☐ Drainage Structures (RCP, RCB, CMP's, ect.)
- ☐ TCP/MOT
- X Paving (PCCP, ect.)
- ☐ Grading/MSE Walls
- ☐ Signal/Lighting/ITS
- ☐ Misc. _____

SUMMARY OF PROPOSAL

(If needed, condense summary to a couple of lines)

_____Use 1 inch profile mill in lieu of planned 1 inch level course.

SCANNING OF DOCUMENT

If the proposal is large, please mark or make note, which pages need to be scanned into the database. If there are special instructions, make note of them here.

_____Scan entire document